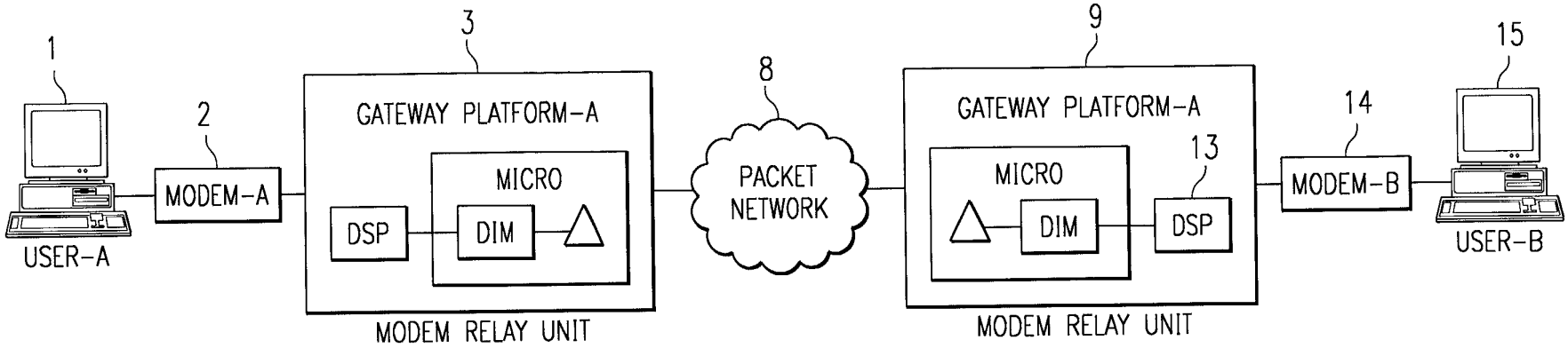

1
2
3
8
9
13
14
15
MODEM-A
GATEWAY PLATFORM-A
MICRO
DSP
DIM
PACKET NETWORK
GATEWAY PLATFORM-A
MICRO
DIM
DSP
MODEM-B
USER-A
USER-B
MODEM RELAY UNIT
MODEM RELAY UNIT

FIG. 1

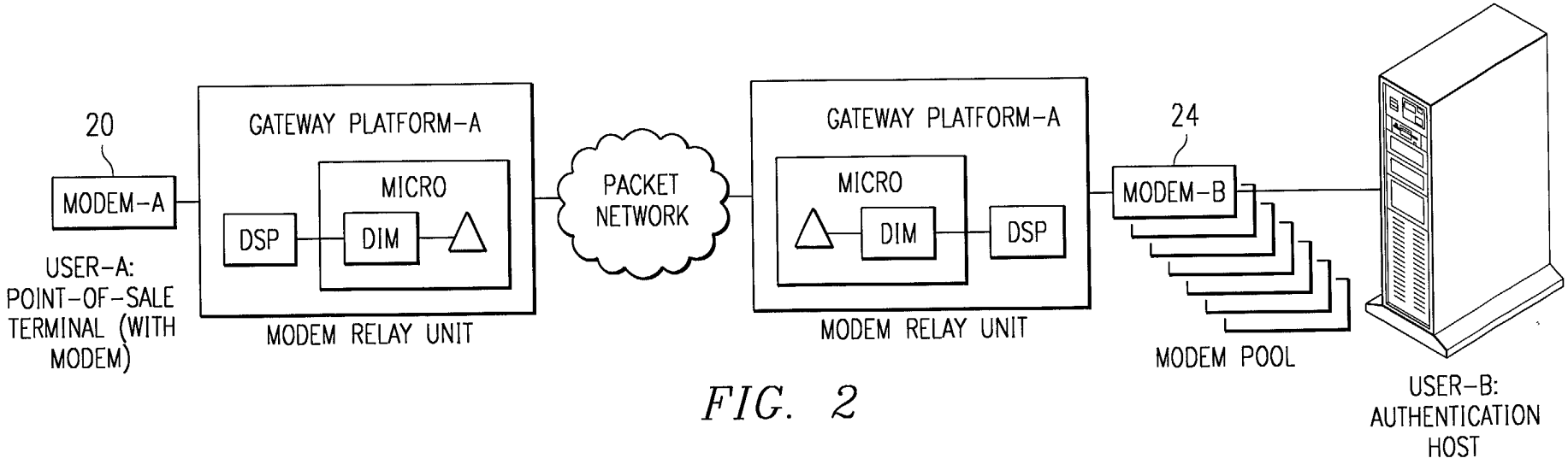

20
24
MODEM-A
USER-A:
POINT-OF-SALE
TERMINAL (WITH
MODEM)
GATEWAY PLATFORM-A
MICRO
DSP
DIM
MODEM RELAY UNIT
PACKET NETWORK
GATEWAY PLATFORM-A
MICRO
DIM
DSP
MODEM RELAY UNIT
MODEM-B
MODEM POOL
USER-B:
AUTHENTICATION
HOST

FIG. 2

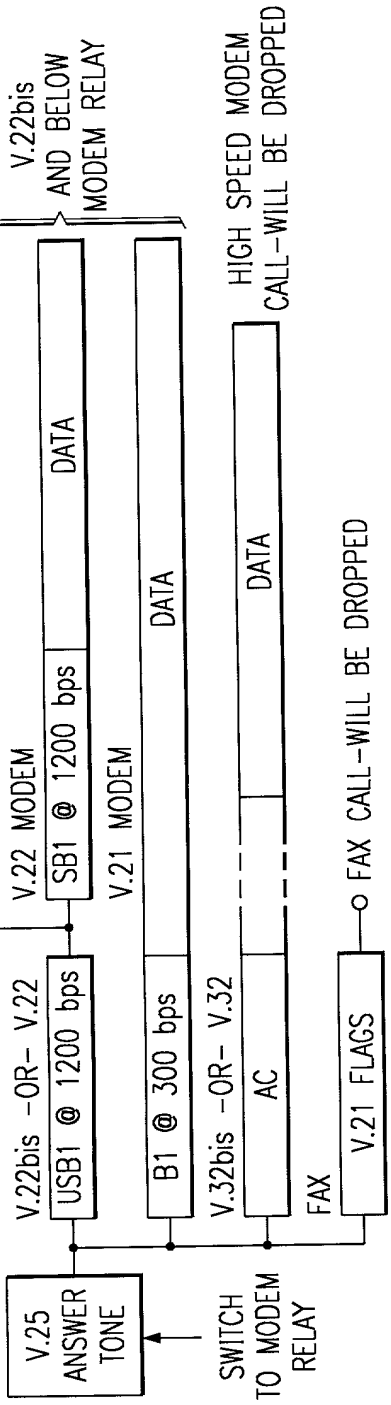

V.25 ANSWER TONE
SWITCH TO MODEM RELAY
V.22bis -OR- V.22
USB1 @ 1200 bps
B1 @ 300 bps
V.32bis -OR- V.32
AC
FAX
V.21 FLAGS
FAX CALL-WILL BE DROPPED
V.22 MODEM
S1
SB1 @ 1200 bps
SB1 @ 2400 bps
DATA
V.21 MODEM
DATA
V.22bis AND BELOW MODEM RELAY
HIGH SPEED MODEM CALL-WILL BE DROPPED
DATA

FIG. 3

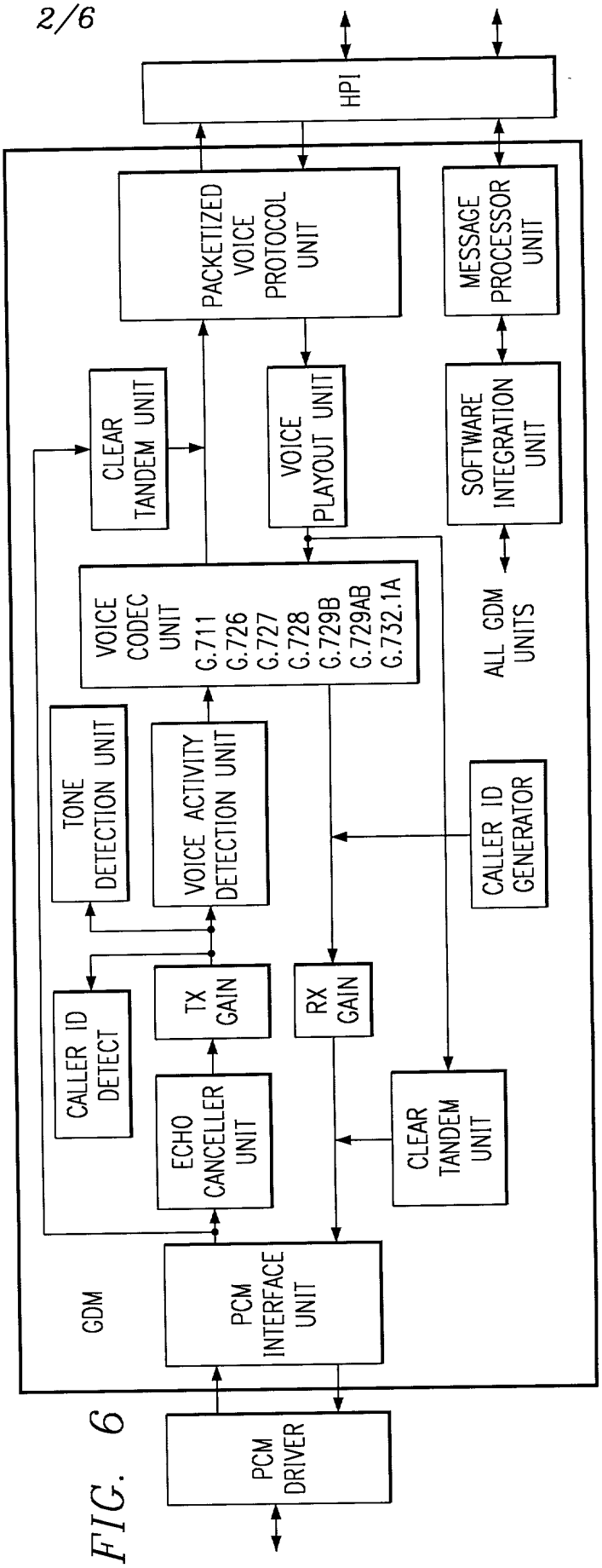

HPI
PACKETIZED VOICE PROTOCOL UNIT
MESSAGE PROCESSOR UNIT
CLEAR TANDEM UNIT
VOICE PLAYOUT UNIT
SOFTWARE INTEGRATION UNIT
VOICE CODEC UNIT
G.711
G.726
G.727
G.728
G.729B
G.729AB
G.732.1A
ALL GDM UNITS
TONE DETECTION UNIT
VOICE ACTIVITY DETECTION UNIT
CALLER ID GENERATOR
CALLER ID DETECT
TX GAIN
RX GAIN
ECHO CANCELLER UNIT
CLEAR TANDEM UNIT
GDM
PCM INTERFACE UNIT
PCM DRIVER

FIG. 6

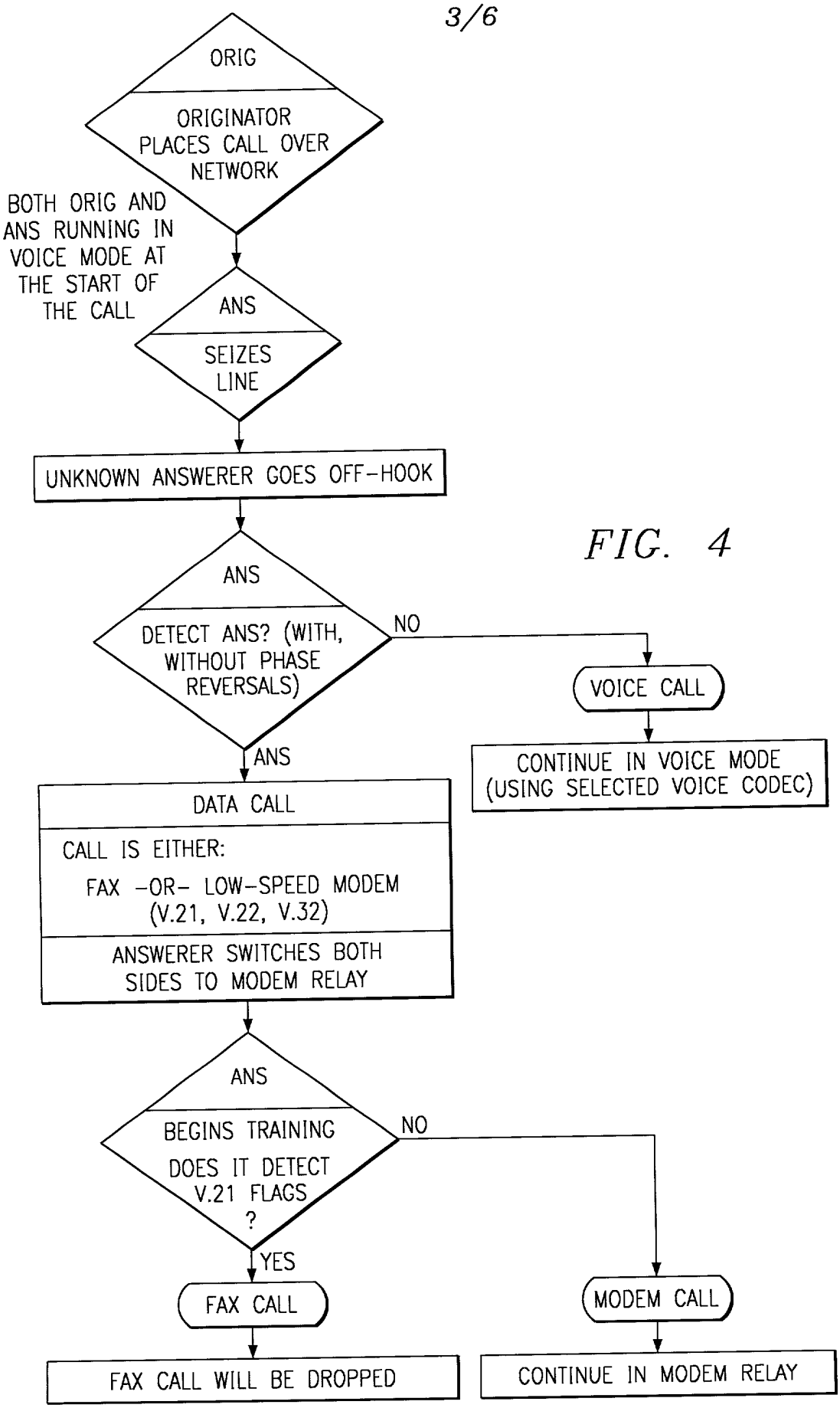


FIG. 4

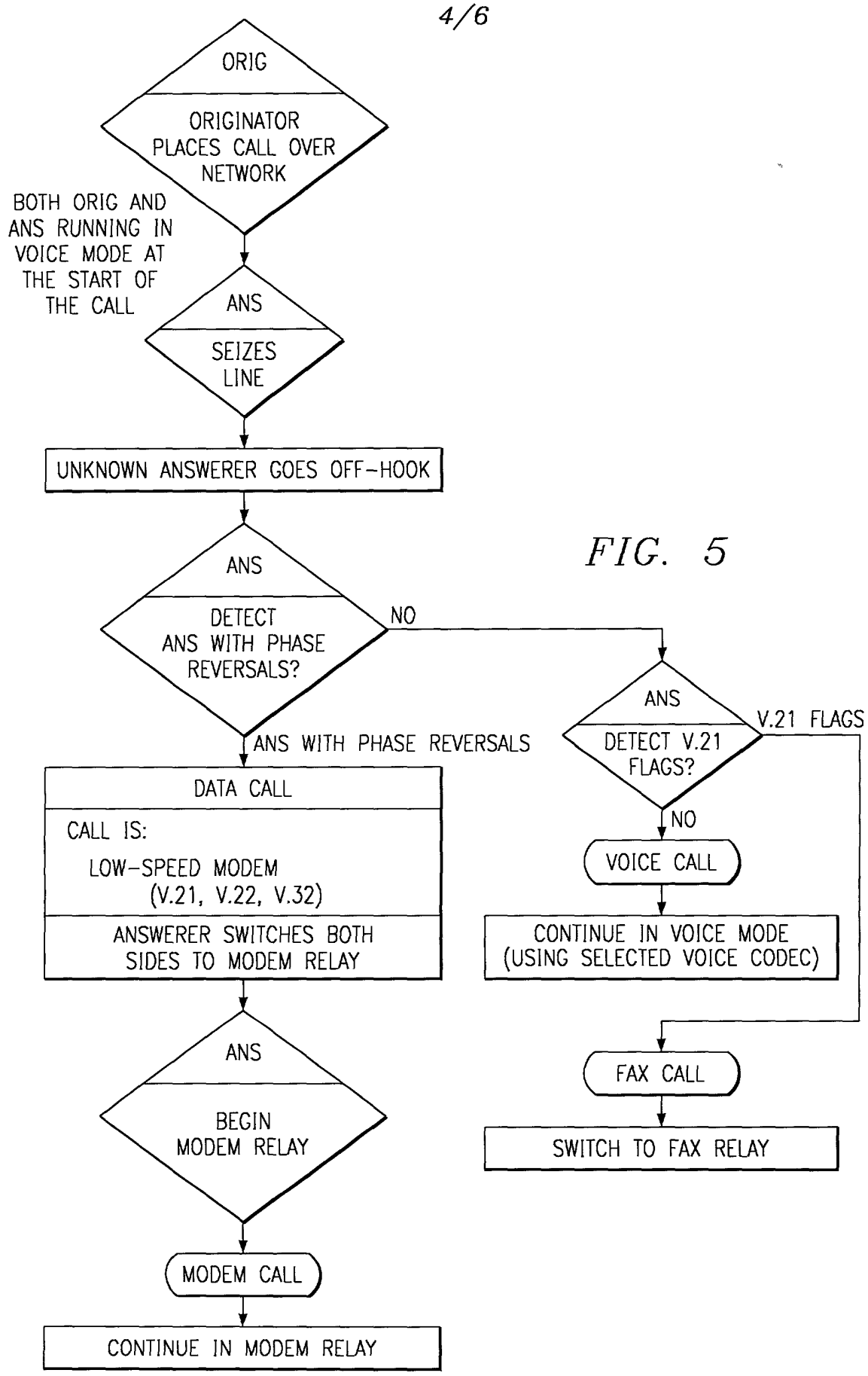


FIG. 5

FIG. 7

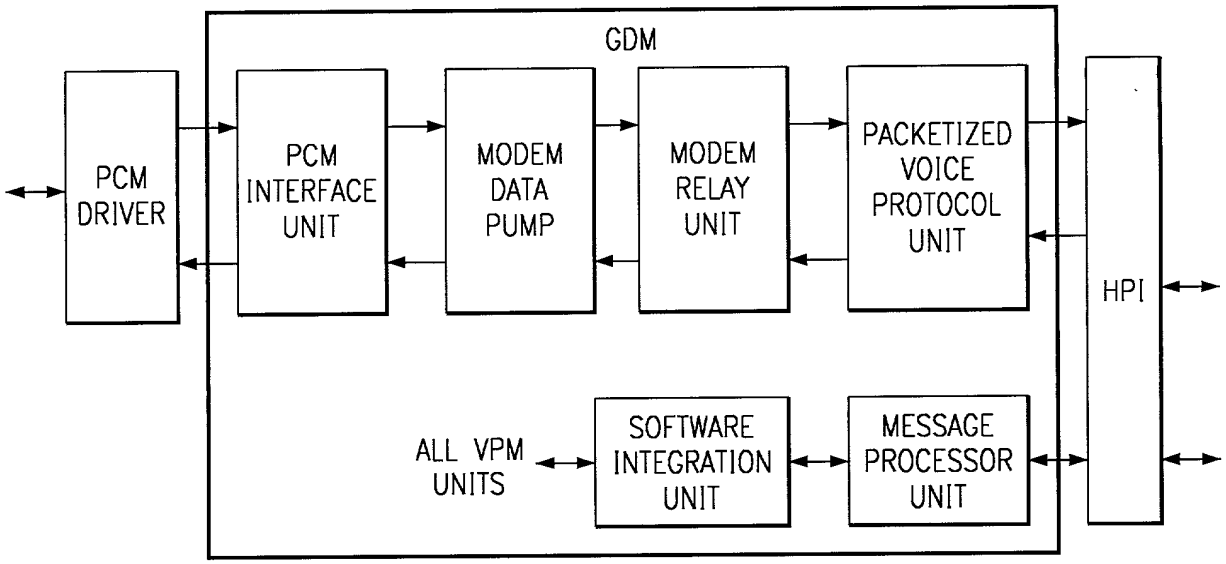
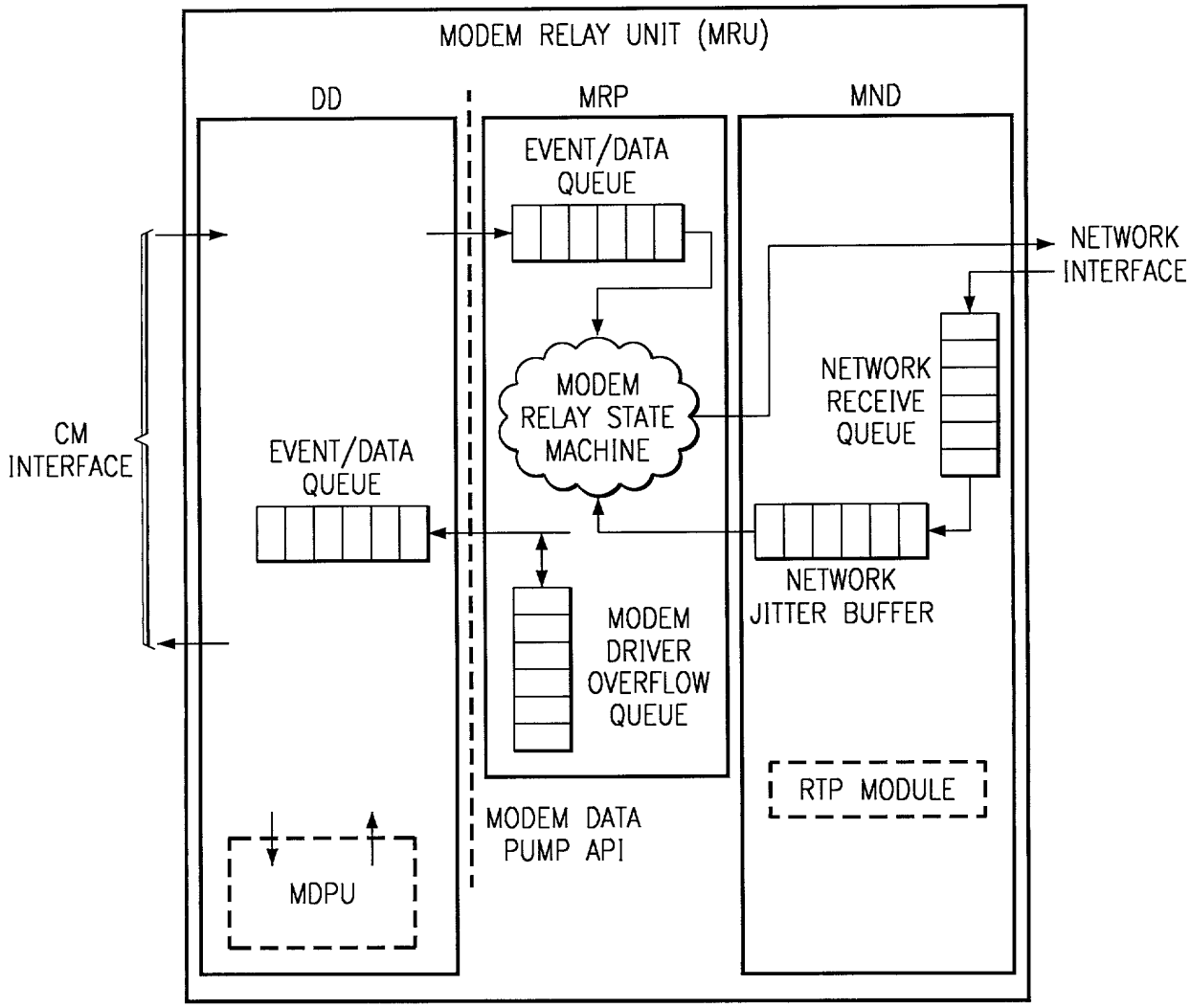

GDM
PCM DRIVER
PCM INTERFACE UNIT
MODEM DATA PUMP
MODEM RELAY UNIT
PACKETIZED VOICE PROTOCOL UNIT
HPI
ALL VPM UNITS
SOFTWARE INTEGRATION UNIT
MESSAGE PROCESSOR UNIT

FIG. 8


MODEM RELAY UNIT (MRU)
DD
MRP
MND
EVENT/DATA QUEUE
NETWORK INTERFACE
MODEM RELAY STATE MACHINE
NETWORK RECEIVE QUEUE
CM INTERFACE
EVENT/DATA QUEUE
NETWORK JITTER BUFFER
MODEM DRIVER OVERFLOW QUEUE
RTP MODULE
MODEM DATA PUMP API
MDPU

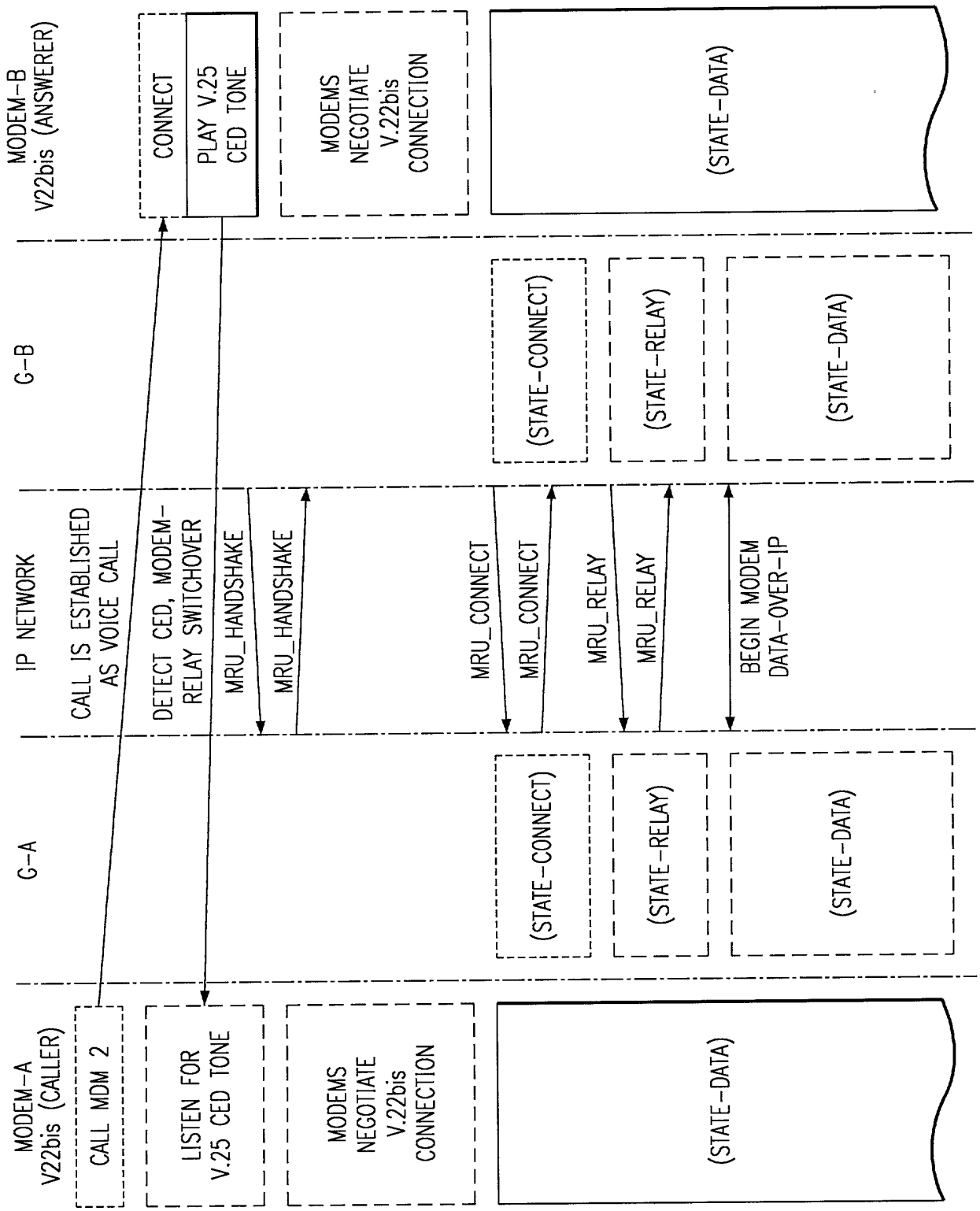

MODEM-A
V22bis (CALLER)
CALL MDM 2
LISTEN FOR
V.25 CED TONE
MODEMS
NEGOTIATE
V.22bis
CONNECTION
(STATE-DATA)
G-A
(STATE-CONNECT)
(STATE-RELAY)
(STATE-DATA)
IP NETWORK
CALL IS ESTABLISHED
AS VOICE CALL
DETECT CED, MODEM-
RELAY SWITCHOVER
MRU_HANDSHAKE
MRU_HANDSHAKE
MRU_CONNECT
MRU_CONNECT
MRU_RELAY
MRU_RELAY
BEGIN MODEM
DATA-OVER-IP
G-B
(STATE-CONNECT)
(STATE-RELAY)
(STATE-DATA)
MODEM-B
V22bis (ANSWERER)
CONNECT
PLAY V.25
CED TONE
MODEMS
NEGOTIATE
V.22bis
CONNECTION
(STATE-DATA)

FIG. 9